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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,021	12/06/2004	Takahide Okuyama	57911US004	2852
32692	7590	01/24/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			SANDERS, KRIELLION ANTIONETTE	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/517,021	<b>Applicant(s)</b> OKUYAMA ET AL.	
	<b>Examiner</b> Kriellion A. Sanders	<b>Art Unit</b> 1714	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3 and 5-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 5-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 0839643.

The European reference discloses a bonded structure comprising:

A rigid plastic substrate,

A primer to adhere the metal oxide coating to the substrate which is a polycarbonate polyurethane. The primer may be used as a barrier with or without the metal oxide coating. It blocks the migration of the plasticizer. (See page 10, lines 2-7).

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An optional metal oxide coating over the plastic substrate,

A polyurethane protective liner over the metal oxide coating, this is an acrylic acid based component. See page 10, lines 33-50 and/or

A primer to adhere the polyurethane protective liner to the metal oxide coating

It would have been obvious if not clearly anticipatory to form a bonded structure according to the direction of the EP reference. Ratios of the polymer in the primer layer are disclosed in weight rather than mass percent, but are thought to overlap with those ratios of applicant's invention. See the sum of primer components in Table 1, page 8.

Claims 2 and 5-8 are rejected under 35 USC 103(a) as being obvious over Umeya US Patent No. 5859122.

Umeya discloses a water-dispersable *polycarbonate polyurethane* resin composition wherein the polyol component used for production of the urethane prepolymer contains a *polycarbonate polyol* as a portion thereof. The water-dispersable *polycarbonate polyurethane* resin compositions of the invention are used as coatings for fiber materials, and as a *paint*, adhesive or modifier for paper, wood, or metal materials. The *polycarbonate polyurethane* resin compositions may be formulated in the form of a polymer dispersion formed by mixing an emulsifying agent with a urethane prepolymer or an organic *solvent* solution of the urethane prepolymer, and emulsifying the dispersion in water using a homomixer or homogenizer. The resulting composition is then mixed with a polyamine for chain extension, or the emulsified

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dispersion is added to an organic *solvent* solution of the polyamine for chain extension. See col. 1, line 58 through col. through col. 5, line 23.

When used as a paint. The patented invention would necessarily form a layer of a paint film that would dry on the surface to be painted. Since the *polycarbonate polyurethane* resins are water dispersible, applicant's limitation to an aqueous solvent containing water is met when the polymers are dispersed in water.

There is no novelty in forming a bonded structure wherein an adhesive sheet is stuck fast to a substrate coated with the patented *polycarbonate polyurethane* resins. The adherence of tape or a similar bonding adhesive to a painted wall or plastic counter (containing a plasticizer) would meet this limitation.

The Umeya polycarbonate polyurethane resin compositions may be used as a paint, adhesive or modifier for paper, wood, metal, FRP, FRTP and other such materials. FRP is taken to mean flame retardant polymers. See col. 5, lines 19-23. Applicant's claimed invention as amended is utilizes the polycarbonate polyurethane resin compositions as a primer layer which is placed between a plasticized polymer layer and an adhesive layer. This is an obvious variation of the Umeya invention. Applicant's polycarbonate polyurethane primer composition is a type of paint or coating. That primer composition is used to coat or prime a plasticized polymer base material. The Umeya polycarbonate polyurethane composition is a type of paint or coating. That composition may be used to coat or "prime" a polymer base material. Umeya is silent as to the presence of plasticizers in the base materials because Umeya does not present particulars of the base materials. The patent focuses rather on the particulars of the coating. Umeya would suggest that a variety of base materials may be employed. The selection of the most appropriate

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would be within the realms of the ordinary practitioner of this art. What Umeya then lacks is an adhesive layer, which is stuck fast to the polycarbonate polyurethane primer or coating layer.

Given the analysis in *Graham vs. Deere*, the ordinary practitioner would find it obvious to position an adhesive layer to the primer layer of Umeya. An example of the resulting bonded structure would be a plastic cabinet base comprised of a plasticized polymer, wherein this base is coated with the polycarbonate polyurethane coatings or paints of Umeya. When a consumer then places a layer of adhesive shelf lining onto this painted plastic cabinet, (the type that may be purchased at any discount store), applicant's invention is clearly met. This is the type of invention that is so common to ordinary life that it would not necessarily be found within the patent or technical literature. It is believed that applicant's novelty of invention resides in the primer layer of the bonded structures of the claims. This primer layer is taught by Umeya. The subsequent use of this primer layer for coating various substrates is also taught by Umeya. Applicant's claims are found to represent an obvious variation over the Umeya invention.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the

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THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122.

The examiner can normally be reached on Monday through Thursday 6:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kriellion A. Sanders  
Primary Examiner  
Art Unit 1714